EPA/DEQ/COP Stormwater Workgroup
Notes from 5/4 Meeting

Attendees: Chip Humphrey, Eric Blischke, Kristine Koch, Dawn Sanders, Linda Scheffler, Kevin Masterson, Tom Roick, Matt McClincy, Karen Tarnow

Karen passed out a draft overview of DEQ's "Comprehensive Stormwater Control Strategy" (attached). While much remains to be fleshed out, we thought it would be helpful to more clearly enunciate the combination of activities we are undertaking to ensure adequate source control on Portland Harbor uplands. In addition, we wanted to make sure the group is clear about the distinction between these activities and the issues that the group is grappling with which are more closely related to the Remedial Investigation. While the RI and the group's deliberations will inform and affect DEQ's efforts to implement the strategy, the strategy is not the focus for this group.

After some discussion, the group listed out a number of questions that we kept circling around because the lack of answers makes it challenging to move the conversation forward:

1. What are the key risk drivers (e.g., while we know PCBs are, what about DDT or others)?
2. What is the relative contribution of contaminants from the various sources (stormwater, groundwater, upriver)?
3. How do we determine the load coming from stormwater?
4. What is the relative importance of the sediment vs. the water components of stormwater?

The group discussed how three of these are primarily RI work (#1, 2 and 4). However, with respect to Question #2 (relative contribution), the group decided it would be worthwhile to attempt to produce our own, very rough estimate in the near term.

- Dawn offered to talk with the City's modeling folks to see if it would be possible to get a rough estimate of average annual runoff from the study area, and whether it is possible to get an estimate of TSS loading (probably using the land use-based estimates from the ACWA study).

The third question (stormwater loading) is the only one that uniquely belongs to this group. To get the conversation going, we looked at a few examples of loading methodologies used in other places (see attached). These include the recontamination evaluations for T-4 and the Thea Foss waterway, and two PCB TMDLs from California.

This led us into a discussion about how we would proceed. Here are the key points and action items that came out of that discussion:

In the most basic terms, calculating mass loading is a simple exercise – it's flow times concentration. The precision of the outcome depends upon how you determine flow and concentration. For example, to determine concentration, you could use literature values,

make some extrapolation based on TSS or some other analyte from a grab sample, or go through any number of approaches to obtain actual data from harbor outfalls. For a first iteration, we agreed to take a stab at estimating loading using existing data. This could be improved upon as more data became available.

- Karen will work on identifying available data to populate the equation and run a number of iterations using different sources of data.

PCBs pose a problem in that they are not as "predictable" as other contaminants – it is more difficult to pinpoint sources, and there doesn't seem to be an indicator (such as TSS) for estimating loading.

- Karen will look around to see if other studies have used a correlation between PCBs and land use, TSS or other surrogate to help estimate loading.

Between Karen's and Dawn's efforts, we hope to get some crude information about the potential impact of stormwater in the harbor. However, in all likelihood, we will want more refined information at some point in time. The challenge is in deciding how to go about that. Many questions will need to be answered.

- What scale do we use?
- What data will we need, and who collects it?
- How will this information be plugged into the fate and transport model? Does that tell us anything about what approach we should take?
- Do we base our loading estimates on actual data or use a surrogate, such as TSS or literature values?

This will be the focus of future meetings.

In addition, there were a couple of miscellaneous follow-up tasks.

- Karen will look at the Columbia Slough TMDL to see how they went about developing a Waste Load Allocation for industrial stormwater, to see if this might inform our efforts.

- Matt and Karen will talk with Bruce Hope and potentially other modelers to see if they have suggestions about how we proceed.